

# TEN YEARS OF THE GLOBE PROGRAM IN POLAND.



Ten years ago on the 22nd of April 1997 (the Earth Day) Deputy Minister of Education Mr. Mirosław Sawicki and United States Ambassador to Poland, the Honorable Nicholas Rey, signed the GLOBE Agreement.

# THE GLOBE PROGRAM IN POLAND – NUMBERS

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- **150** trained schools
- **290** trained teachers
- **3000** students taking part in the GLOBE Program each school year
- **537 643** measurements contributed to the GLOBE Program
- **2** basic training workshops for teachers in each school year
- **1** specific training workshop (2 levels) for teachers who already participate in the GLOBE Program in each school year
- **1** conference for GLOBE school directors in each school year
- **2** student's seminars and GLOBE Games in each school year

# **THE GLOBE PROGRAM IN POLAND – SCHOOL YEAR 2006/2007**

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## **TEACHERS:**

- Basic training workshops for teachers who want to implement the GLOBE Program in their schools  
October 20th – 21st 2006 in Warsaw  
May 15th – 16th 2007 in Warsaw
- 5th GLOBE teachers conference and specific training workshops for teachers who already participate in the GLOBE Program.  
September 27th – 29th 2006 in Warsaw







# STUDENTS:

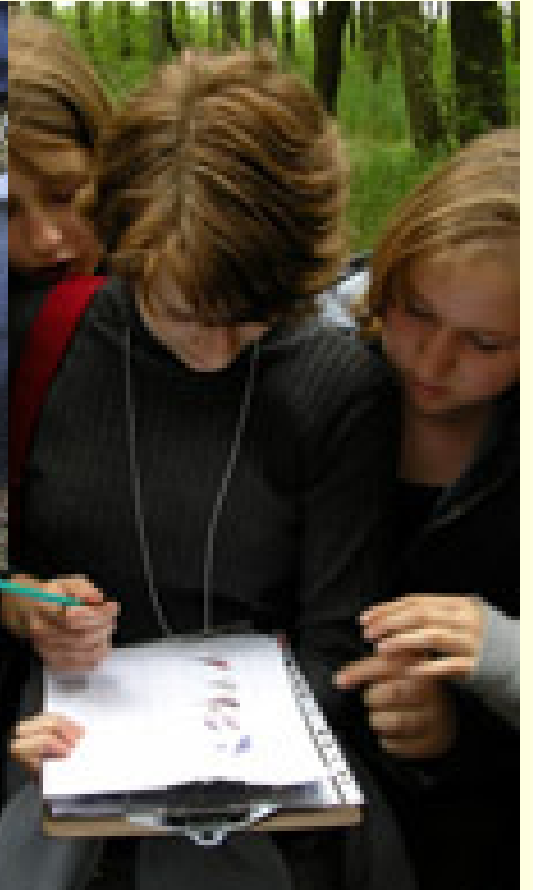
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- Student's seminar in Poland  
June 10th – 13th in Szklarska Poreba
- GLOBE Games in Czech Republic  
May 4th – 7th in Sluknov
- Student's seminar and Polish GLOBE Games  
June 17th – 20th in Stara Dabrowa











# SCHOOL DIRECTORS

## 7th GLOBE school directors conference

April 20th 2007 in Warsaw



# INVESTIGATION CLASS IN GIMNASIUM NO.10 IN RZESZOW – SPECIAL GLOBE CURRICULUM



Rzeszow

# How to link the elements of the **GLOBE Program** together with the school curriculum?







## ■ Biology and Science Team

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## ■ Maths and IT Team



## ■ The Arts and The Humanitiest Team



# **GLOBE ACROSS THE CURRICULUM.**



# CHEMISTRY

**Lesson subject: Acid rains –  
the problem of modern  
civilization.**



| The curriculum                            | GLOBE Program elements |
|---|------------------------|
| Air as a mixture of gases. Air pollution. | Atmosphere – rainfall. |



# BIOLOGY

**Lesson subject: Water as the environment of vital functions**



| The curriculum   | GLOBE Program elements                              |
|--|---|
| Relations between species in nature.                             | Hydrology – alkalinity, ph                          |
| Energy flow and matter circulation in different natural systems. | Atmosphere – rainfall, ph of rainfall.<br>Soil – ph |

# PHYSICS

**Lesson subject: Fusion and solidification phenomenon (freezing and melting).**



| The curriculum   | GLOBE Program elements            |
|--|-----------------------------------|
| Matter density.<br><br>Kinetic model of matter structure | Atmosphere – equivalent in water. |

# GEOGRAPHY

**Lesson subject:**  
**Atmospheric pressure,**  
**temperature and falls on**  
**the Earth.**



| The curriculum  | GLOBE Program elements |
|---|------------------------|
| The Earth as life environment.<br>The Earth's history and modern image. | Atmosphere.            |



# MATHEMATICS

**Lesson subject:**

**Area of a circle. The length of circumference.**



**The curriculum**

Periphery and area of polygons; area of a circle, the length of circumference.

**GLOBE Program elements**

Biological research: periphery of a tree, height of a tree.

# INFORMATION TECHNOLOGY

**Lesson subject: Excel –  
spreadsheet.**



| The curriculum  | GLOBE Program elements   |
|---|--------------------------|
| Using Excel for making calculations in everyday life. | Atmosphere.<br>Hydrology |

# TECHNOLOGY AND DESIGN

**Lesson subject:**  
**Constructing tools –**  
**clinometer and densimeter.**



| The curriculum              | GLOBE Program elements |
|-----------------------------|------------------------|
| Designing and constructing. | Biological research.   |

# POLISH LANGUAGE



| The curriculum                                   | GLOBE Program elements                                      |
|--|---|
| Different ways of speaking and writing.          | Autumn/Fall sky description (atmosphere/clouds)             |
| Speech parts functions and sentence construction | Logical and grammatical parsing of a sentence (GLOBE texts) |



# FOREIGN LANGUAGES



| The curriculum  | GLOBE Program elements                |
|---|---------------------------------------|
| <p>Improving language skills: reading, writing, listening and speaking.</p> <p>Enlarging vocabulary e.g. everyday life in English speaking countries.</p> | <p>Vocabulary in GLOBE protocols.</p> |

# INVESTIGATION CLASS - INNOVATION

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- innovation concerning changes in the curriculum and methodology
  - innovation in class 1B (29 students) all students take part in the GLOBE Program
  - innovation in teaching chemistry, physics, biology and geography.
  - duration of the innovation: September 1st 2005 – June 21st 2008
  - investigation class' curriculum is enlarged; 1 hour of chemistry, 1 hour of physics, half an hour of biology and geography more per week
  - investigation class has extra classes on Hydrology and Atmosphere.



# INVESTIGATION CLASS DOING RESEARCH

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Gathering data about the Earth





Observing environment , using research tools



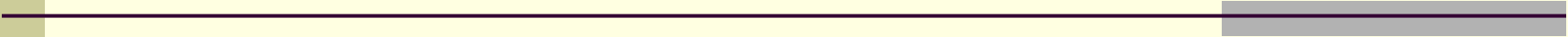


**Gathering data and sending it to the GLOBE database**




# CLASSES IN LABORATORY AT TECHNICAL UNIVERSITY IN RZESZOW.





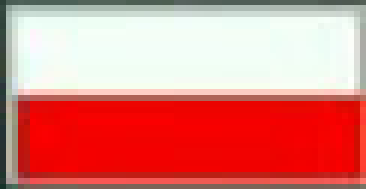
**SETTING UP THE  
INVESTIGATION CLASS HAS GIVEN  
STUDENTS OPPORTUNITY TO GET  
TO KNOW LOCAL ENVIRONMENT  
BETTER THROUGH SYSTEMATIC  
AND ACTIVE PARTICIPATION IN  
SCIENTIFIC RESEARCH.**



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**SHORT MOVIE MADE BY  
OUR STUDENTS 😊**





# POLAND





**THANK YOU VERY MUCH  
FOR YOUR ATTENTION**

